

The Network Origins of Firm Dynamics: Contracting Frictions and Dynamism with Long-Term Relationships

Johannes Boehm, Ezra Oberfield, Ruairidh South, Mazhar Waseem

Abstract :

We study theoretically and empirically how firm-to-firm sales relationships shape firm dynamics and productivity. We first present a parsimonious model of firm dynamics where dynamics arise from the arrival of new potential matches between firms, acting as supply shocks from the perspective of buyers, and as demand shock from the perspective of suppliers. Buyers switch to new suppliers when it is optimal to do so. The model matches the empirical regularities on firm volatility and exit probabilities declining with size, endogenous fat tails in firm growth rates, and some firms with persistently (but not permanently) high growth rates ("gazelles"). We apply the model to a setting in which contracting frictions between firms give rise to long-term relationships. These arrangements improve incentives within the relationship, but firms switch to new suppliers less frequently. This reduces firm dynamism, in the sense that firm sales are less volatile, there is less mean reversion, exit rates are lower, and the right tail of the firm size distribution is thinner. We corroborate these predictions with production data on Indian manufacturing plants and transaction-level data from Pakistan, using variation across regions in court congestion as a proxy for weak formal enforcement and variation across industries in whether the output requires customization. Using a quantitative implementation of our model we show that the dynamic cost of long-term contracts is significant, with the increased court congestion between the state with the fastest courts and the state with the slowest courts reducing aggregate productivity by roughly 15%.